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Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CEMENT/2014-15

Date: 07.07.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.
REFERENCE	:	EE/DD/WO/217/2013-14 Dated: 27.01.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 1989-2013
1	Standard Consistency	IS-4031 (Part -4)	28.50 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	490 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.13/KRIDL/SAND/2014-15 : 07.07.2014

TEST REPORT ON FINE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of Work : Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.

Reference : EE/DD/WO/217/2013-14 Dated: 27.01.2014

Date of Testing : 07.07.2014

Material : Sand Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	35	3.50	3.50	96.5	90-100
2.36	162	16.20	19.70	80.3	75-100
1.18	170	17.00	36.70	63.3	55-90
600 Micron	256	25.60	62.30	37.7	35-59
300 Micron	185	18.50	80.80	19.2	8-30
150 Micron	125	12.50	93.30	6.7	0-10

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Job No.: CTCE/BBMP/W.No.13/KRIDL/AGG/2014-15 : 07.07.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of Work : Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.

Reference : EE/DD/WO/217/2013-14 Dated: 27.01.2014

Date of Testing : 07.07.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **10000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	215	2.15	2.15	97.85	95-100
20	6250	62.50	64.65	35.35	30-70
10	2105	21.05	85.70	14.30	10-35
4.75	1285	12.85	98.55	1.45	0-5

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CC Blocks/2014-15 11.07.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of work : Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.

Reference : EE/DD/WO/217/2013-14 Dated: 27.01.2014

Size of Block : 400 mm x 200 mm x 200 mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum Compressive Strength of Individual Units
			kN	N/mm^2	N/mm^2
1	09.07.2014	11.07.2014	257.3	3.22	3.2
2	09.07.2014	11.07.2014	262.3	3.28	
3	09.07.2014	11.07.2014	263.4	3.29	

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CC Blocks/2014-15 11.07.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of work : Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.

Reference : EE/DD/WO/217/2013-14 Dated: 27.01.2014

Size of Block : 400 mm x 150 mm x 200 mm

Cross Sectional Area : 60000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum Compressive Strength of Individual Units
			kN	N/mm^2	N/mm^2
1	09.07.2014	11.07.2014	197.3	3.29	3.2
2	09.07.2014	11.07.2014	196.5	3.28	
3	09.07.2014	11.07.2014	194.9	3.25	

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CUBE/2014-15

20.08.2014

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of the work : Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.

Reference : EE/DD/WO/217/2013-14 Dated: 27.01.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{15}

Compressive Strength as on : 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.07.2014	20.08.2014	8.159	360.2	16.01
2	23.07.2014	20.08.2014	8.235	378.6	16.83
3	23.07.2014	20.08.2014	8.378	389.6	17.32

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Job No.: CTCE/BBMP/W.No.13/KRIDL /Pre Cast Slab/2014-15

05.08.2014

TEST REPORT ON CONCRETE CORE (PRE CAST SLAB)

Name of Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Name of Agency	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of work	:	Improvements to Footpath & Drains in 16th & 19th Cross road & other roads in Ward No.13, in SSD, BBMP, Bangalore.
Reference	:	EE/DD/WO/217/2013-14 Dated: 27.01.2014
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Sample ID	:	Pre cast slab
Date of Testing	:	05.08.2014

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	77.00	0.379	2506.79	1.54	0.955	32.00	16.30	17.60	16.81	21.01
2	50.00	78.00	0.385	2513.83	1.56	0.960	33.00	16.81	18.15	17.43	21.78
3	50.00	79.00	0.390	2514.25	1.58	0.965	33.60	17.11	18.48	17.83	22.29

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